

Work Order ID 85940

June-19-12 7:59:27 AM

85940

Page 1

Item ID: D4062-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Upper Tank Support

Start Date: 19/06/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 03/07/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/06/19 Tooling:

Date:

Run Start ***NR1***

QC:

Date: SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4062

C

100

0.00

100

Waterjet

Memo

0.00

FLOW CNC Waterjet

CUT BLANK AS PER FILE D4062-1_BLANK

1" UHMW BLK.

B12-7-5

102

QC2- Inspect parts off machine FAI/FAIB

0.00

102

QC

Memo

0.00

Quality Control

DAJ
14
2-03

12/07/14

105

0.00

105

HAAS I

Memo

0.00

HAAS CNC vertical machine #1

MILL AS PER DWG AND FOLIO FA949

DWG REV: C

FOLIO REV: AA

POTR

12/07/15

4 0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 85940

June-19-12 7:59:27 AM

85940

Page 2

Item ID: D4062-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Upper Tank Support

Start Date: 19/06/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 03/07/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

106

QC2- Inspect parts off machine FAI/FAIB

0.00

PD/Rg

12/07/15

4

0

106

QC

Memo

0.00

Quality Control

130

QC8- Inspect parts - second check

0.00

DA
14
2-89

12/07/16

4

0

130

QC

Memo

0.00

Quality Control

140

Identify as per dwg & Stock Location: UMA

0.00

4

0

M
12-07-18

140

Packaging

Memo

0.00

Packaging

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
				40 D				

NOTE: Date & initial all entries

Work Order ID 85940

June-19-12 7:59:27 AM

85940

Page 3

Item ID: D4062-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Upper Tank Support

Start Date: 19/06/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 03/07/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____

Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.00

Quality Control

12/17/2012

MJS 12/07/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

June-19-12 7:59:31 AM

Page 1

Work Order ID: 85940

85940

Parent Item: D4062-1

D4062-1

Parent Item Name: Upper Tank Support

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A NEW ISSUE 10-06-22 JLM VERIFIED BY:DD IPP
REV:B AS PER REV B 11-11-23 JLM VERIFIED BY:DD IPP REV:C
AS PER REV C 12-03-08 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MUHMWB10

Purchased

No

sf

116.8100

14.4

15,

MUHMWB10

**

1812-7-f

UHMW 1" Black

Location

Loc Qty

Loc Code

MAT018

93.7

120972

1

121346

27.1

121954

65.6

MAT019

1.5

118814

1.5

ST052

21.60999474

121277

12.8

121278

8.80999474

86
1222-8

4

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	85940
Description: Lower Tank Support		Part Number:	D4062-1
Inspection Dwg: D4062	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.00	+/-0.030	1.005	✓		VERN	PHD-01
0.13	+/-0.030	0.136	✓		Mic	118-120
2.00	+/-0.030	2.000	✓		VERN	PHD-01
1.00	+/-0.030	1.001	✓		"	"
0.35	+/-0.030	0.347	✓		"	"
R0.25	+/-0.030	0.250	✓		Rad gage	
0.38	+/-0.030	0.370	✓		VERN	PHD-01
0.38	+/-0.030	0.371	✓		"	"
1.38	+/-0.030	1.370	✓		"	"
R0.25	+/-0.030	0.250	✓		Rad gage	
31.38	+/-0.030	31.375	✓		MTAPE	PHD-11
28.30	+/-0.030	28.40 ^{28.31}	✓		MTAPE	"
26.30	+/-0.030	26.300	✓		"	"
20.83	+/-0.030	20.825	✓		"	"
15.51	+/-0.030	15.500	✓		"	"
10.19	+/-0.030	10.187	✓		"	"
5.07	+/-0.030	5.062	✓		"	"
3.07	+/-0.030	3.062	✓		"	"

Measured by: PO/RP	Audited by: [Signature]	Preliminary Approval:
Date: 12/07/15	Date: 12/07/16	Date:

Rev	Date	Change	Revised by	Approved
A	12.02.01	New Issue	KJ	
B	12.05.15	Dimensions updated per Dwg Rev C	KJ	
C	12.06.08	Part description corrected	KJ	[Signature]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

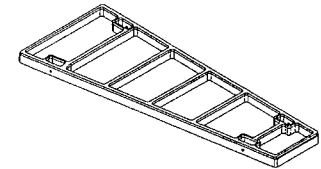
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

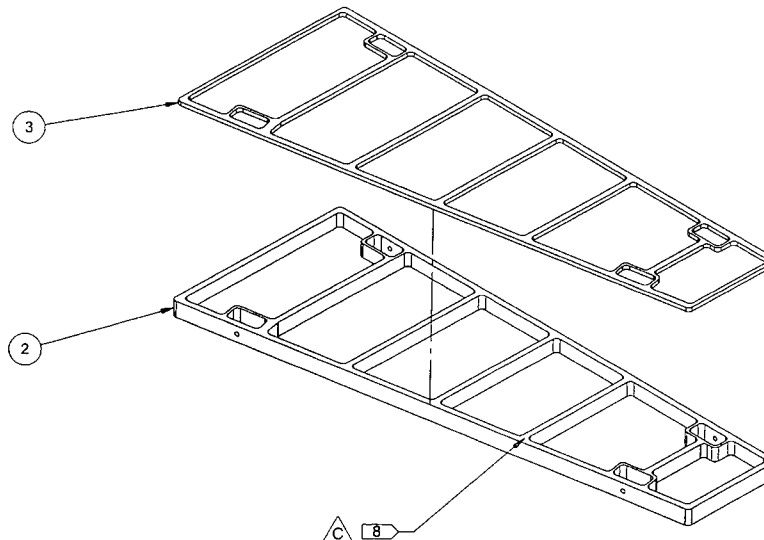
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
					8/21			

NOTE: Date & initial all entries

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D4062-041	TANK SUPPORT ASSEMBLY
2	1	D4062-1	LOWER TANK SUPPORT
3	1	D4062-3	UPPER TANK SUPPORT



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 85940 MJS
12/06/19



D4062-041 TANK SUPPORT ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 2.91 lbs
- 8) BOND ITEMS 2 & 3 TOGETHER USING PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT

2012-03-02

C	REMOVE HARDWARE TO ATTACH ITEMS 2 & 3. REMOVE C-BORE.	DC	11.12.14
B	MODIFIED DIMS & DESIGN OF -1, ADDED -3/-041	DC	11.09.29
A	NEW ISSUE	HS	10.07.26
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.12.14		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4062** REV. C
SHEET 1 OF 3
TITLE **TANK SUPPORT** SCALE NTS

COPYRIGHT © 2010 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

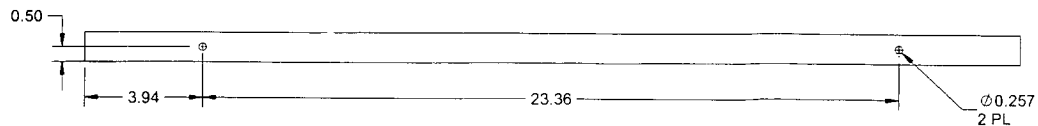
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

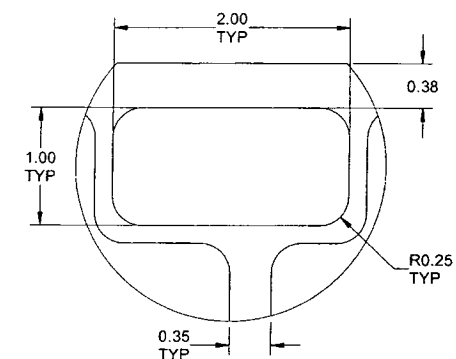
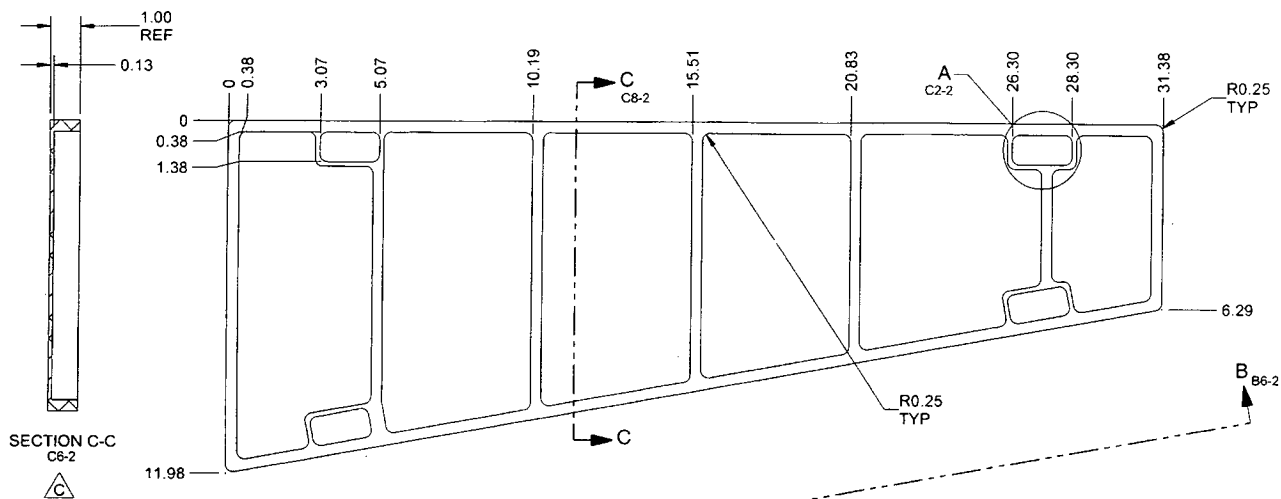
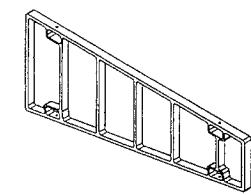
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

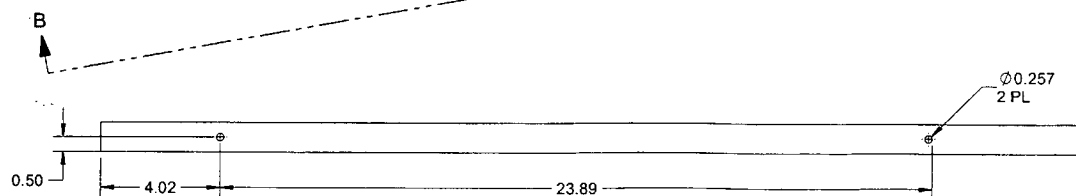
NOTE: Date & initial all entries



05940



DETAIL A
SCALE 4X
C4-2



VIEW B-B
B5-2

NOTES:

- 1) MATERIAL: BLACK UHMW TIVAR 1000 VIRGIN MATERIAL SHEET, 1.00 THICK
REF DART SPEC MUHMWB10
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 2.53 lbs
- 8) CUT PER D4062-1.DXF
- 9) MAXIMUM INSIDE RADIUS = 0.250

D4062-1 LOWER TANK SUPPORT

DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA D4062 TANK SUPPORT COPYRIGHT © 2010 BY DART AEROSPACE LTD. <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>
DRAWN	BC	
CHECKED	BC	
MFG. APPR.	BC	
APPROVED	BC	
DE APPR.	BC	REV. C SHEET 2 OF 3 SCALE NTS
DATE	11.12.14	

RELEASED
2012-03-02
MP

Dart Aerospace Ltd

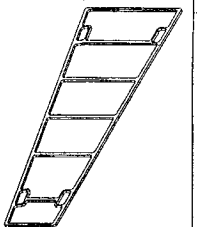
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

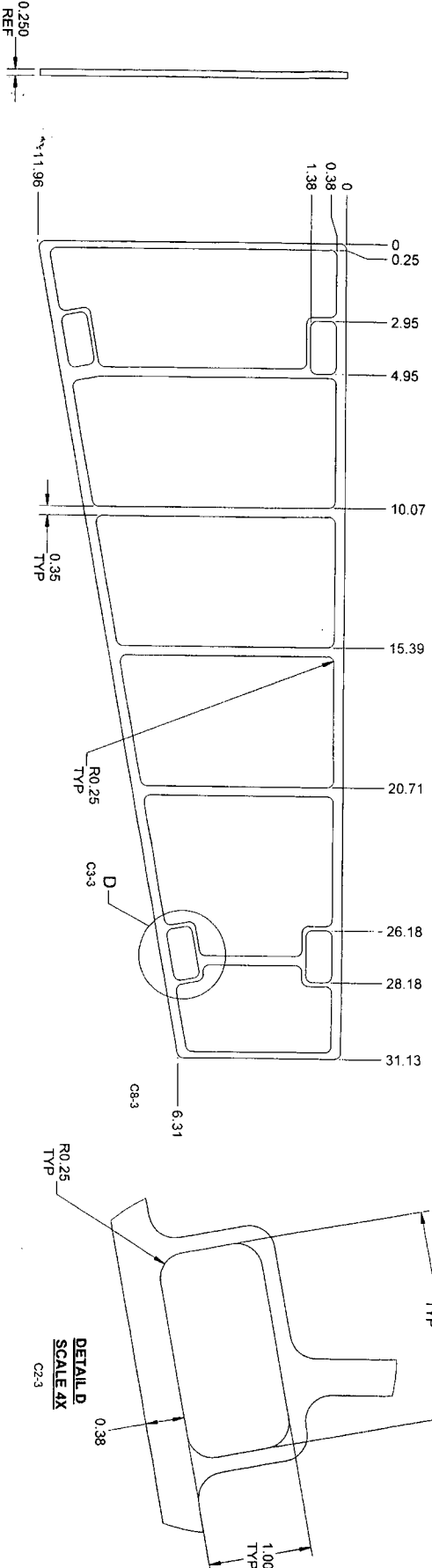
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



2594D



D4062-3 UPPER TANK SUPPORT

RELEASED
11-2012-65-02
NN

- NOTES:
- 1) MATERIAL: BLACK UHMW/ TYVAR 1000 VIRGIN MATERIAL SHEET, 0.25 THICK
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART SPEC MUHMB025
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.37 lbs
 - 8) CUT PER D4062-3.DXF

DESIGN		DART AEROSPACE LTD
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	DRAWING NO. D4062
MFG. APPR.	<i>[Signature]</i>	REV. C
APPROVED	<i>[Signature]</i>	SHEET 3 OF 3
DE APPR.	<i>[Signature]</i>	SCALE
DATE	11.12.14	NTS
TANK SUPPORT		
COPYRIGHT © 2012 BY DART AEROSPACE LTD.		
THIS DOCUMENT IS UNCLASSIFIED AND IS AVAILABLE TO THE PUBLIC ON THE BASIS OF THE INFORMATION CONTAINED HEREIN.		
FOR THE USE OF THE PUBLIC, THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED.		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries